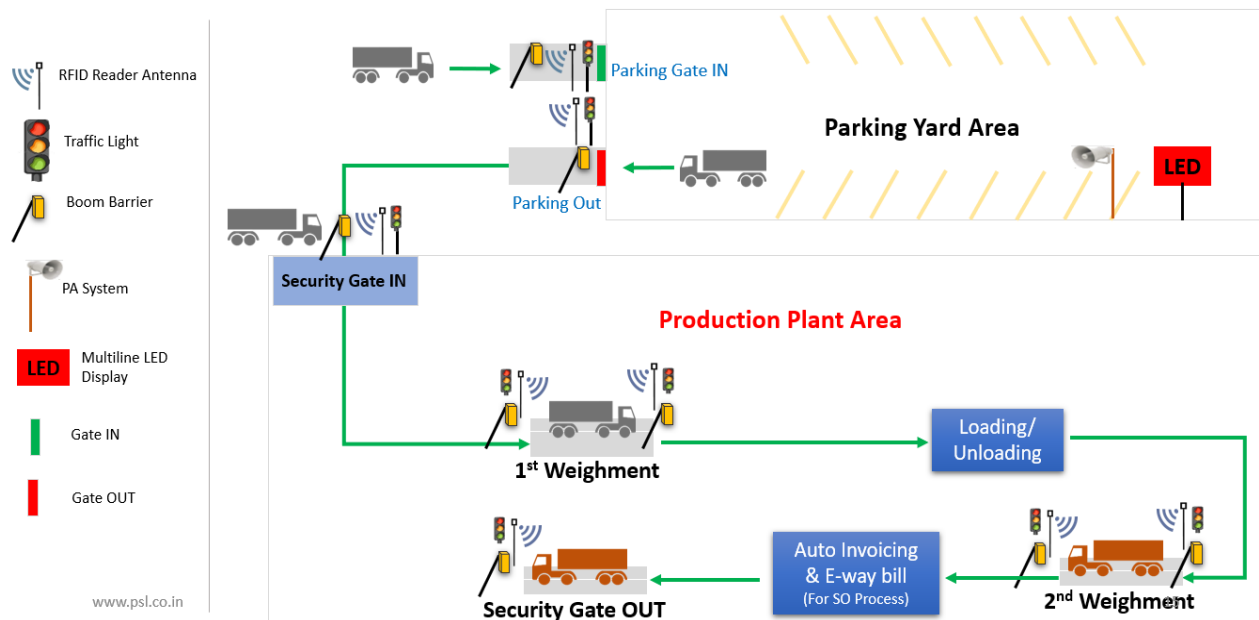


RFID- For Production Plant

Cement Plants are facing number of challenges when managing its nationwide network of factories and sales offices. The key issues include vehicle traffic congestion within its facilities; uncontrolled movement of truck drivers and other workers at the plants, which create safety issues; a rise in the volume of paperwork related to cement loading; and a lack of visibility into truck movement and availability at the plants.

To address these issues, PSL proposed a radio frequency identification (RFID) system to Cement Plant. The solution tracks truck locations and improves the process of transporting cement to customers as well as Tracks the trucks bringing in Raw Materials into the plant premises. The project benefits in the areas of **(Safety, Productivity, Efficiency to Ensure customer Delight)**, focused on improving the safety of truckers and other employees; increasing efficiencies and productivity through the optimal use of cement packers, trucks and other resources; and ensuring customer satisfaction through better order-to-delivery compliance.

Proposed Project Process flow for Plant



Benefits

A. Plant:

- Focused on improving the safety of truckers and other employees.
- Increasing efficiencies and productivity through the optimal use of cement packers.
- Ensuring customer satisfaction through better order-to-delivery compliance.
- Ensure customer Delight.
- Increase in dispatches.
- Increase in number of trips per truck.
- Lower operating costs due to lower packer shifts.
- Higher customer service level.
- Collaborating with transporters to reduce yard waiting time.
- Optimized sequencing of trucks.
- Central control of all plant movement.
- Freight reduction or moderation of future increases.

B. Mining:

- Auto capture of Material Hauled by the Truck.
- Real Time Posting of Information of the Mine to Destination movement of Trucks as per Destination capture.
- Machine & Manpower Utilization Report.
- Increased Safety.

ROI-Return of Investments

- Due to optimized sequencing of trucks the trips per truck will be Increase, so it will help to achieve daily, monthly dispatch targets.
- Each weighbridge & Gates is operating in three shifts. RFID automation would help to decrease the operator work load.
- The manual processes threw up several other challenges like typing error etc. and the long hours of waiting inside the plants with the engines running wasted lot of fuel and led to traffic jams.
- Security has difficulty in entering data during rush hour since all the data has to be manually entered at the gate in and gate out which is susceptible to human errors.
- Weighment Stabilization ensures accurate quantities are dispatched and received.

Safety

- **Driver Safety:** RF Enabled Weighment process would enable completion of the Weighment process while the driver is inside the Vehicle which increases the safety of the driver as he does not have to get off the vehicle.
- **Vehicle Safety:** Unavailability of driver inside the truck at weighbridge it's a risk because if hand-break failed then accident can happen. After RFID automation driver will not come out from truck.
- **Employee Safety:** Lesser number of trucks at any given point in time decreases chances of accidents.
- **Restricting Un-Authorized Access:** Only valid trucks will enter\exit the plant.